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PROVISIONAL PATENT APPLICATION COVER SHEET

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 C.F.R. §1.53(c).

Express Mail Label No.: EV 199928581 US		Attorney Docket No.: 9968-115U1
INVENTOR(S)		
Given Name (first and middle [if any])	Family Name or Surname	Residence (City and either State or Foreign Country)
<input type="checkbox"/> Additional inventors are being named on _____ separately numbered sheets attached hereto		
TITLE OF INVENTION (500 characters maximum)		
ELECTRONIC BOOK SYSTEM WITH BOOK RETAINER		
CORRESPONDENCE ADDRESS		
Customer No.: 000570 AKIN GUMP STRAUSS HAUER & FELD LLP One Commerce Square 2005 Market Street, Suite 2200 Philadelphia, PA 19103 Telephone: 215-965-1200 Facsimile: 215-965-1210		PLACE BAR CODE LABEL HERE
ENCLOSED APPLICATION PARTS (check all that apply)		
<input checked="" type="checkbox"/> Specification - Number of Pages: <u>6</u> <input checked="" type="checkbox"/> Drawing(s) - Number of Sheets: <u>9</u> <input type="checkbox"/> Application Data Sheet		<input type="checkbox"/> CD(s), Number: _____ <input type="checkbox"/> Other (specify) _____
METHOD OF PAYMENT OF FILING FEES FOR THIS PROVISIONAL APPLICATION FOR PATENT		
<input type="checkbox"/> Applicant(s) claim Small Entity Status under 37 C.F.R. §1.27 as: <input type="checkbox"/> an Independent Inventor, or <input type="checkbox"/> a Small Business Concern, or <input type="checkbox"/> a Non-Profit Organization. <input checked="" type="checkbox"/> A check in the amount of \$160.00 under 37 CFR §1.16(k) (Fee Code 1005) is enclosed herewith. (Billing #209968.0124) <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge or credit Deposit Account No. 50-1017 as indicated below. <input type="checkbox"/> Provisional Application Filing Fee in the amount of \$160.00 under 37 CFR §116(k) (Fee Code 1005). <input checked="" type="checkbox"/> Any deficiencies or overpayments in the above-calculated fee. <input checked="" type="checkbox"/> Any additional fees required under 37 CFR §1.16 or §1.17.		
The invention was made by an agency of the United States Government or under a contract with an agency of the U.S. Government. <input checked="" type="checkbox"/> No. <input type="checkbox"/> Yes, the name of the U.S. Government agency and the Government contract number are:		
<div style="position: relative; height: 100px;"> Date April 27, 2004 </div>		Respectfully submitted,  Richard A. Woldin Reg. No. 39,879 Akin Gump Strauss Hauer & Feld LLP One Commerce Square 2005 Market Street, Suite 2200 Philadelphia, PA 19103 Direct Dial: 215-965-1296 E-mail: rwoldin@akingump.com

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TITLE OF THE INVENTION

Electronic Book System With Book Retainer

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

5 The foregoing summary, as well as the following detailed description of preferred embodiments of the invention, will be better understood when read in conjunction with the appended drawings, Figs. 1-19. For the purpose of illustrating the invention, there is shown in these drawings embodiments which are presently preferred. It should be understood, however, that the invention is not limited to the precise arrangements and instrumentalities shown.

DETAILED DESCRIPTION OF THE INVENTION

10 Certain terminology is used in the following description for convenience only and is not limiting. The words "right," "left," "lower" and "upper" designate directions in the drawings to which reference is made. The words "inwardly" and "outwardly" refer to directions toward and away from, respectively, the geometric center of base unit or a page spread of the electronic book system, and designated parts thereof. The terminology includes the words noted above,
15 derivatives thereof and words of similar import.

A digital image of a first preferred embodiment of the electronic book system with a book retainer, generally designated 10, and hereinafter referred to as the "EBS" 10 in accordance with the present invention is shown in Fig. 1. The EBS 10 is an interactive, finger-based, electronic learning system that allows a child to activate electronic speech by pointing to
20 words or objects on the cover and pages of multi-page books. The principle components of the system are a base unit 12 housing system electronics, a starter book 14 removably mountable in a book well 16 in the base unit 12, and read only memory ("ROM") (not shown) within the base unit 12 having stored therein software with the content of the starter book 14. The Little People Farm 18, shown in Fig 1 with a spiral binding 20, is a preferred embodiment of the starter book
25 14. Another preferred embodiment of the starter book 14, shown in Fig. 3 as a diagrammatic rendering, is generally designated 22 and is hereinafter referred to as the "D-Book" 22. The D-book 22 has a generally D-shaped binding 24 as further discussed below. In addition to spiral and D-shaped bindings, other well known binding methods that are safe for toddlers to user may be used to bind the books.

The starter book 14 may be supplemented by a library of supplemental books (not shown), each associated with a ROM cartridge 26a (Fig. 10) removably insertable in the base unit 12. The ROM cartridges 26a have stored therein software and data relating to the content of the supplemental books. For aesthetic purposes, the base unit 12 preferably is provided with a removable dummy ROM cartridge 26b (without software or data) when the EBS 10 is not used with a supplemental book as the software or data required for the starter book 14 is in the non-removable ROM in the base unit 12. In addition to or in lieu of the starter book 14 or the supplemental books, the base unit 12 may be used with substantially planar cards 34, such as the cards shown in Fig. 9.

Referring to Fig. 2, in addition to book-based activity, selectable graphics on the upwardly facing surface of the book well 16 and additional software in the ROM in the base unit 12 allow book-well based game play when a book is not present in the book well. Preferably, the graphics include eight selectable keys 28 simulating an eight-key musical keyboard 30 that allows a child to play a scale on an instrument such a xylophone. Scales related to other musical instruments can be activated by selecting the corresponding instrument graphic 32 also appearing of the surface of the book well 16. In alternative embodiments, book-well based game play may be directed to other activities with corresponding selectable graphics, such as alphabet-based game play.

The general functionality of the base unit 12 and the electronics in the base unit 12 are substantially the same as the functionality and electronics disclosed in detail for the base unit in pending U.S. Non-Provisional Patent Application 10/448,583 filed May 30, 2003 and entitled "An Electronic Learning Device For An Interactive Multi-Sensory Reading System". Accordingly, the base unit 12 has a position sensor (not shown) for detecting the selection of one or more active areas or objects appearing on the upper surface of the book-well 16 or on the pages of a book in the book well as disclosed in detail in U.S. Non-Provisional Patent Application No. 10/448,582 filed May 30, 2003 and entitled "Interactive Multi-Sensory Reading System Electronic Teaching/Learning Device." The base unit electronics also provides an autonomous optical page identification system disclosed in detail in International Application PCT/US04/02518 filed May 30, 2003 and entitled "Interactive Electronic Device with Optical Page Identification System" (U.S. Provisional Application No. 60/443,967 entitled "Optical

Page Identification System”). Each of the above cited applications is incorporated herein by reference.

The graphic layouts appearing on the page spreads of the starter book 14, the supplemental books and the cards 34 preferably, but not necessarily, include one or more selectable objects that have some tactile feature. For example, referring to Fig. 9, the picture frame 36, the bed spread 38, Zoe’s body 40 and Elmo’s body 42 have fabric overlays with a different texture. The tactile features are not limited to fabric textures, and may include other textures such as the cardboard texture of the block box 44 and the wood texture of the wooden box 46 also appearing in Fig. 9. The tactile features are not limited to the above examples and may include features associated with any known material or selectable object such as raised printing, stickers and embossed stickers, paper including sand paper and foil paper. Topographical textural features associated with molded polymeric materials also are included within the meaning of the phrase “tactile features”.

The tactile features associated with a selectable object appearing on a page spread or card may be accessible only when the page spread or card on which the tactile feature is attached or, alternatively, may be accessible when the user is viewing page spreads or cards other than the page spread or card on which the tactile feature is attached. For example, referring to Figs. 4-5, the cover 48 (Fig. 4) for a “Little People Farm” book configured for a D-shaped binding and the underlying first page spread 50 have a cut out 52 in the lower right corner, allowing the graphic of a farmer 54 on a second page spread 56 underlying the first page spread 50 to be accessible when the cover 48 or the first page spread 50 are viewable by the user. Accordingly, tactile features, if any, associated with the graphic of the farmer 54 may be selectable at times other than when the second page spread 56 is viewable in its entirety. In contrast, graphics of animals 58 appearing on the first page spread 50 are only viewable when the first page spread 50 is viewable.

Referring to Figs. 6-8, in addition to the cut outs 52 discussed above, circular die cuts 60, 60a on successively overlying page spreads provide access to underlying objects with tactile features. The shape of the die cuts need not be circular as they can be any arbitrary shape without departing from the scope and spirit of the invention. The book shown in Figs. 6-8 comprises a plurality of bound pages including a cover page 62 (Fig. 6), a first page spread 64 (Fig. 7), and a last page spread 66 (Fig. 8). The graphic of the dog 68 in the right hand portion

of the last page spread 66 has a body with a fur spot 68a as a tactile feature. The fur spot 68a is accessible through the circular die cuts 60, 60a in register with and overlaying the fur spot 68a. Accordingly, for a viewable page spread, such as the first page spread 64 (Fig. 7) having a right die cut 60a and a left die cut 60b on the corresponding right and left hand portions of the page spread, only the right die cut 60a provides accessibility to the underlying fur spot 68a. The left die cut 60b does not overlay an object with tactile features. However, another novel feature of the present invention is that the selection of the left die cut 60b (e.g., placing a finger in the circular hole) may cause the base unit 12 to produce an audible output related to a selectable object, if any, underlying the left die cut 60b or a predetermined audible output unrelated to the underlying object or a change in the mode of operation of the device.

The interaction between the user and EBS 10 is script based. Any and all of the modes of operation (story, word, spelling, phonics, surprise, find, count, and music) discussed in pending U.S. Non-Provisional Patent Application 10/448,583, incorporated by reference above, are available to the script writer. In addition, new modes, the instructions for which may be stored in the removable ROM cartridges associated with the supplemental books and cards, may provide additional functionality for the EBS 10. The typical interaction relating to the tactile features of one or more of the associated selectable objects includes but is not limited to the following: a non-prompted touch of an object having a tactile feature may cause the EBS 10 to produce an attribute associated with the object as an audible output, (e.g., barking, if the object is a fur spot of a dog) or, alternatively, an audible output associated with the tactile feature (e.g., I have fur, if the fur spot of the dog is touched). Prompted interactions include such prompts as “touch something furry” followed by a positive acknowledgement if the fur spot of the dog is touched. If an incorrect selection is made an output representative of the incorrect selection may be output. A hint for a next attempt may also be provided. From the above disclosure, the artisan will understand that a user’s interaction with a tactile features is script based and directed to providing the user with either an entertaining or learning experience by providing the capability of exploring various aspects of the sense of touch with an interactive electronic book system. Accordingly, there is no limit intended on the nature of the interaction provided.

As stated above, the nature of the configuration of a book with a plurality of overlying die cuts providing accessibility to a selectable object with tactile features on an underlying page is that as the right hand portion of a two page spread is turned to view the right hand portion of

an underlying page spread, the position of the die cut that is in register with the tactile feature when positioned on the right may not be in register with another object with a tactile feature when the die cut is positioned on the left. Accordingly, the present invention provides for an interactive experience even if the die cut does not provide accessibility to a tactile feature. As
5 the interaction is scripted, upon selection of a die cut that is not associated with a tactile feature, the base unit electronics may respond by changing to another mode of operation, such as music mode in which a predetermined music-related output is produced, or any other output the script writer may provide including an output associated with an underlying but selectable object, if any, that is in register with the die cut.

10 As stated above, the starter book 14, or one or more of the supplemental books, in a preferred embodiment of the present invention may have a D-shaped binding 24. Referring to Figs. 11-14, the D-shaped binding 24 (Figs. 11-12) may comprise a first half 24a (Fig. 13) and a second half 24b (Fig. 14), each of which has a binding base 70 and a plurality of partial rings 72 configured to join in a tongue and groove like manner to form the D-shaped binding 24. The
15 joining of the first and second halves 24a, 24b of the D-shaped binding 24 may be by a friction fit, by an adhesive bond, by thermal fusion or by any other well known method. The D-shaped binding 24 is preferably a polymeric material. Alternatively, the binding may be formed from a metal or other suitable material.

Referring to Figs. 15-16, an alternatively configured D-shaped binding 24' is shown for
20 another preferred embodiment of the present invention. The alternatively configured D-shaped binding 24' has a unitary construction. The base 70' has a plurality of members 72' having a first end 72a' in unity with one side of the base 70' and a second end 72b' having a tang 74 configured for a snap-fit insertion into a corresponding detent 76 in another side of the base 70', such that upon insertion of the tang 74 in the detent 76, each of the plurality of members 72'
25 assumes a closed, generally semi-circular of "D" shape. Although the tangs 74 preferably form a snap-fit joint, the tangs 74 may be alternatively configured to be adhesively bonded or thermally fused in the detent 76.

Referring to Figs. 17-19, in another preferred embodiment of the present invention, the base unit 12 has a book retainer 78 for releasably retaining the D-shaped binding 24, 24' in a
30 binding receiving slot 80 (Fig. 19) in the base unit 12. The book retainer 78 comprises a generally rectangular-shape retainer base 82 configured to conform with the slightly concave

shape of the bottom portion 84 of binding receiving slot 80. A pair of opposed and spaced-apart
retainer arms 86 in unity with the book retainer 78 are positioned proximal to each end of the
retainer base 82 and extend upwardly. The end 86a of each retainer arm distal to the retainer
base 82 has an inwardly extending tongue 88. The retainer arms are elastically compliant and
5 exert an inwardly directed reactive force when displaced outwardly. Preferably, the book
retainer 78, including the retainer base 82 and the retainer arms 86, is a polymeric material.
Alternatively, the book retainer 78 can be other well known material such as metal suitable able
to perform the disclose function.

Referring to Figs. 18 and 19, the book retainer 78 is positioned adjacent the under side
10 90 of the bottom portion 84 of the binding receiving slot 80 such that the retainer arms 86
extend into corresponding retainer slots 92 in the sidewalls 94 of the binding receiving slot 80
and the tongues 88 of the retainer arms 86 project into the binding receiving slot 80. Preferably,
the retainer base 82 is adhesively attached to the under side 90 of the bottom portion 84 of the
binding receiving slot 80. Alternatively, the retainer base 82 can be attached by other well
15 known methods such as fusion bonding or with conventional mechanical fasteners, including
screws, rivets and the like.

Preferably, the D-shaped binding 24, 24' is adapted for use with the book retainer 78 by
having retainer receiving slots (not shown) positioned along the binding base 70 such that the
retainer receiving slots are in register with the tongues 88 of the retainer arms 86 and receive the
20 tongues 88 in a snap-fit manner when the D-shaped binding 24, 24' is inserted in the binding
receiving slot 80.

It will be appreciated by those skilled in the art that changes could be made to the
embodiments described above without departing from the broad inventive concept thereof. It is
understood, therefore, that this invention is not limited to the particular embodiments disclosed,
25 but it is intended to cover modifications within the spirit and scope of the present invention.

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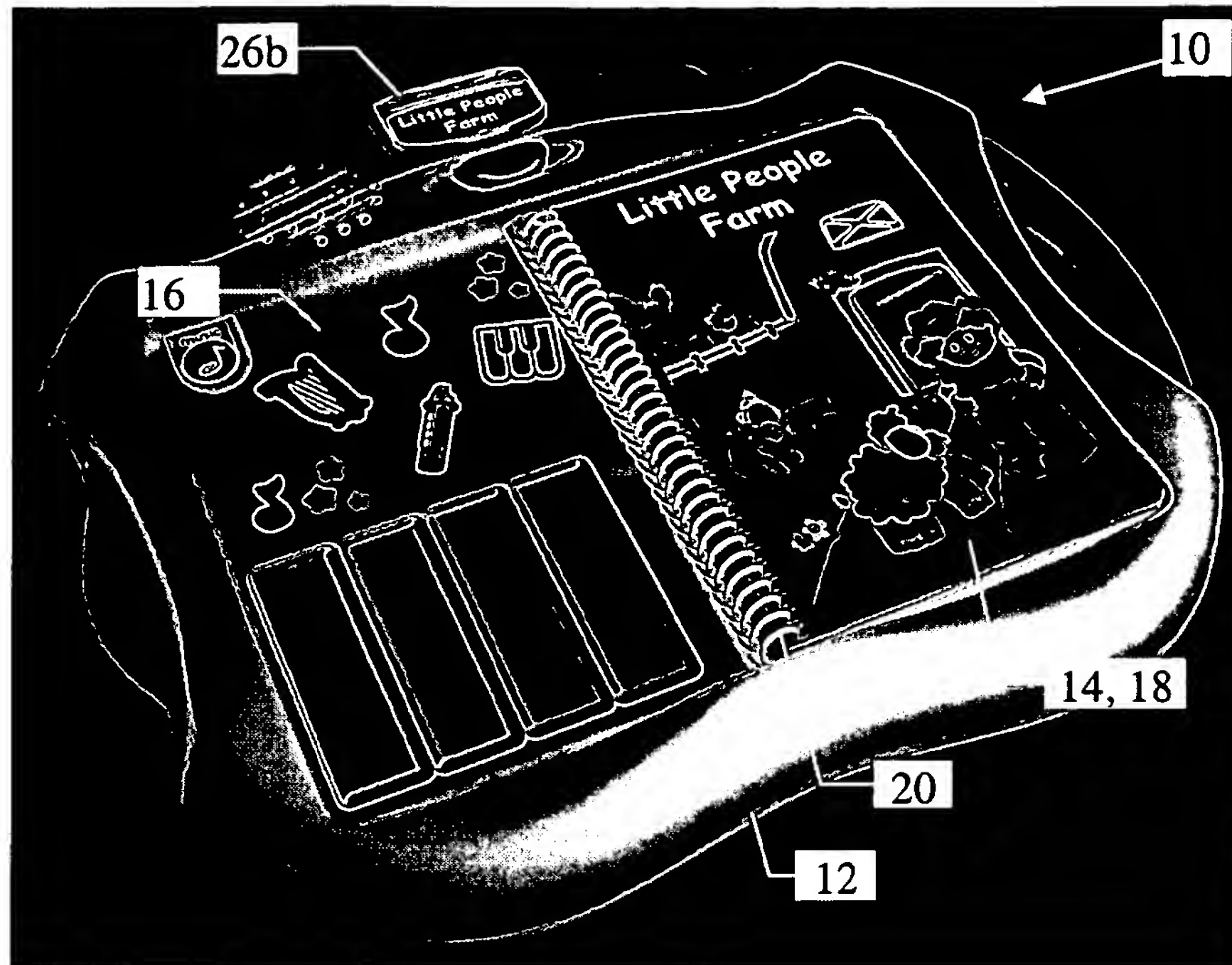


Fig. 1

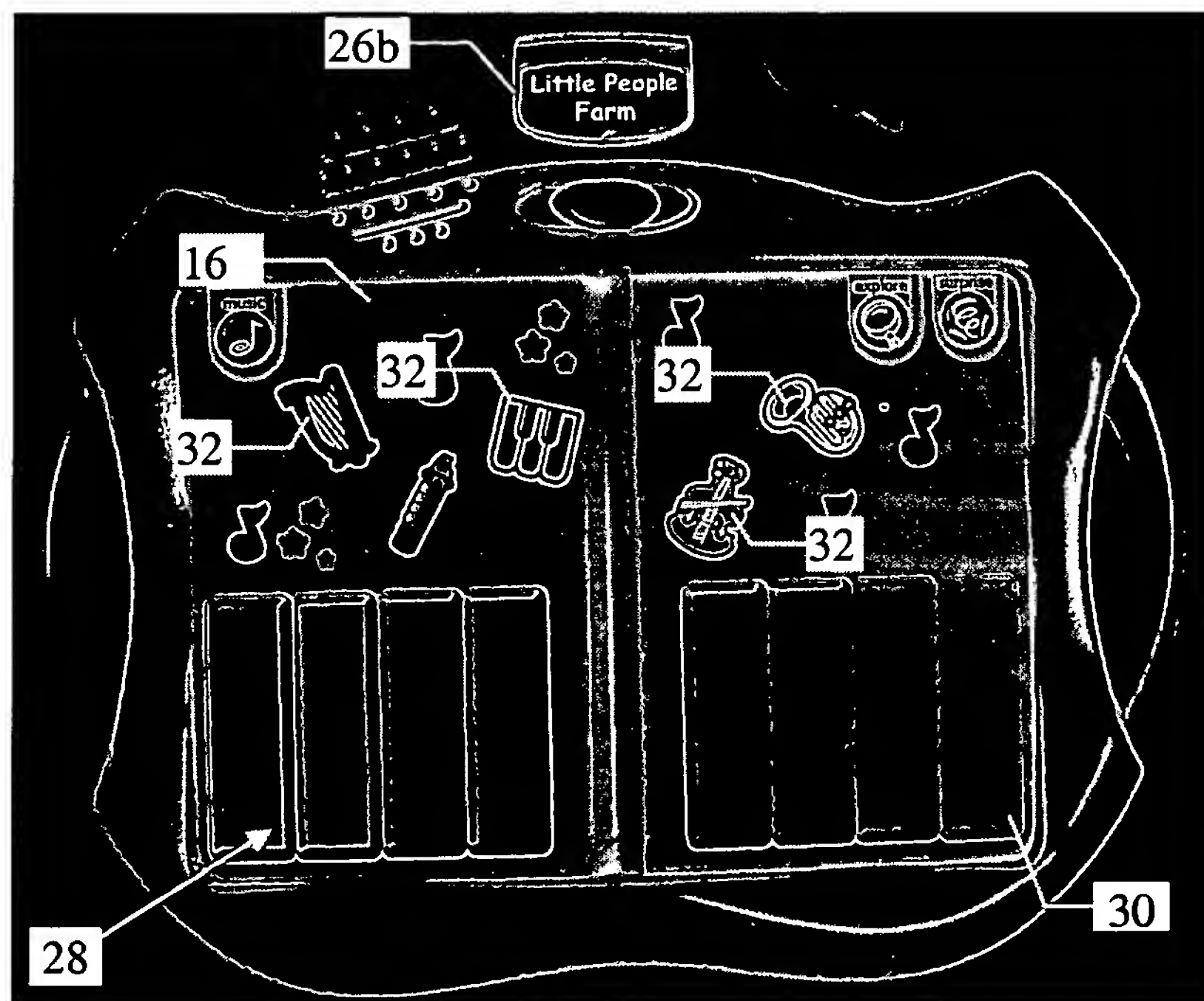


Fig. 2

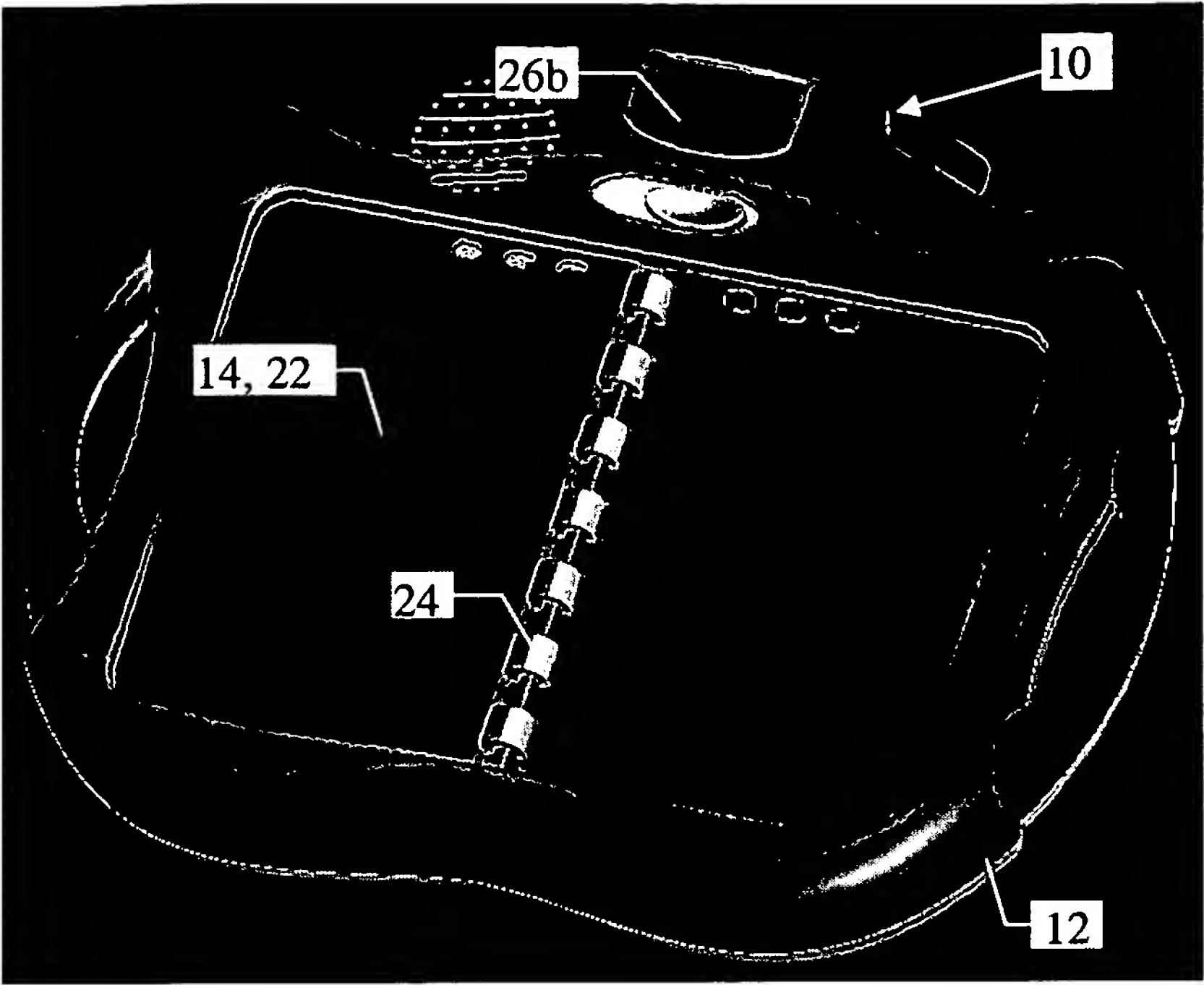


Fig. 3

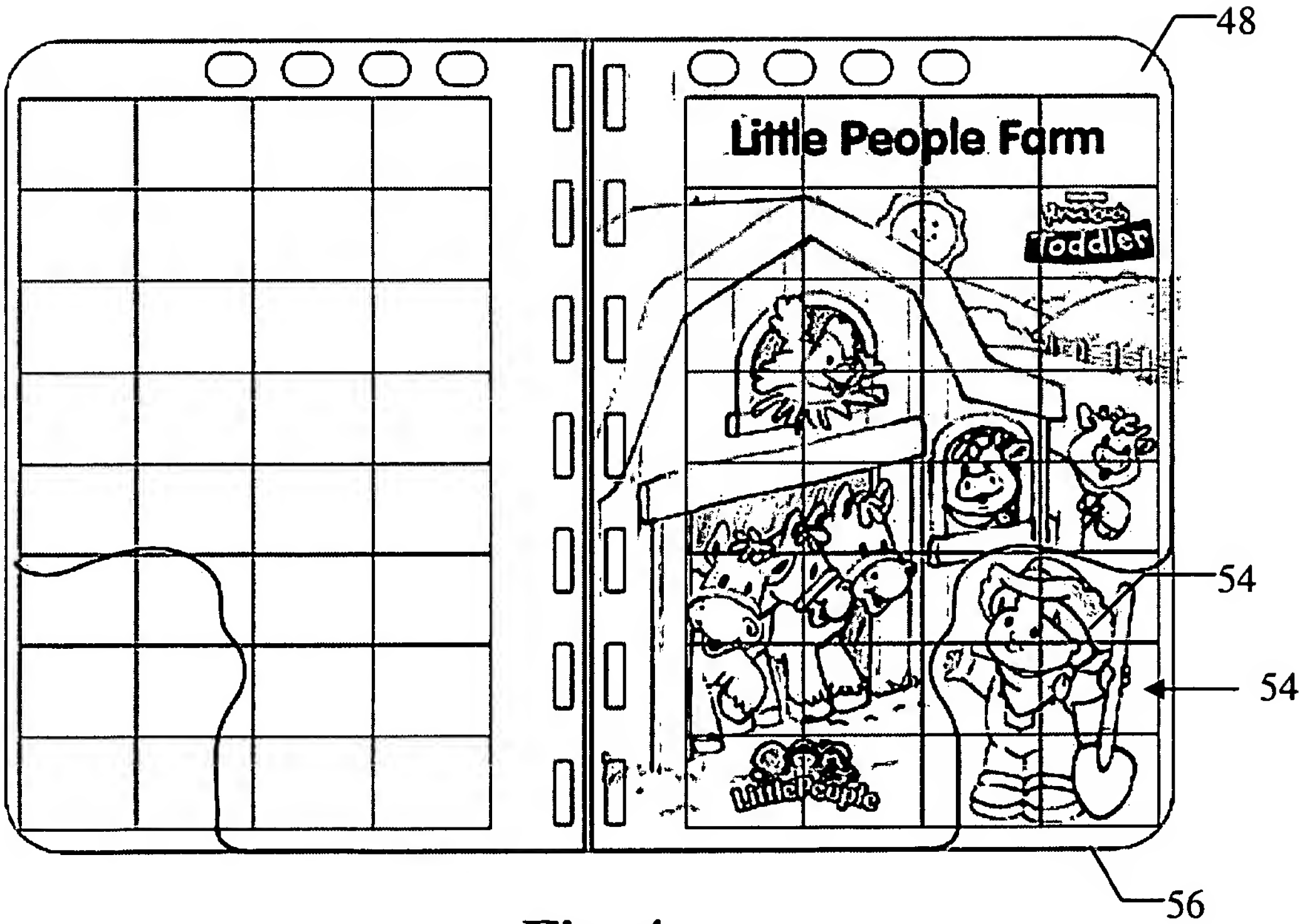


Fig. 4

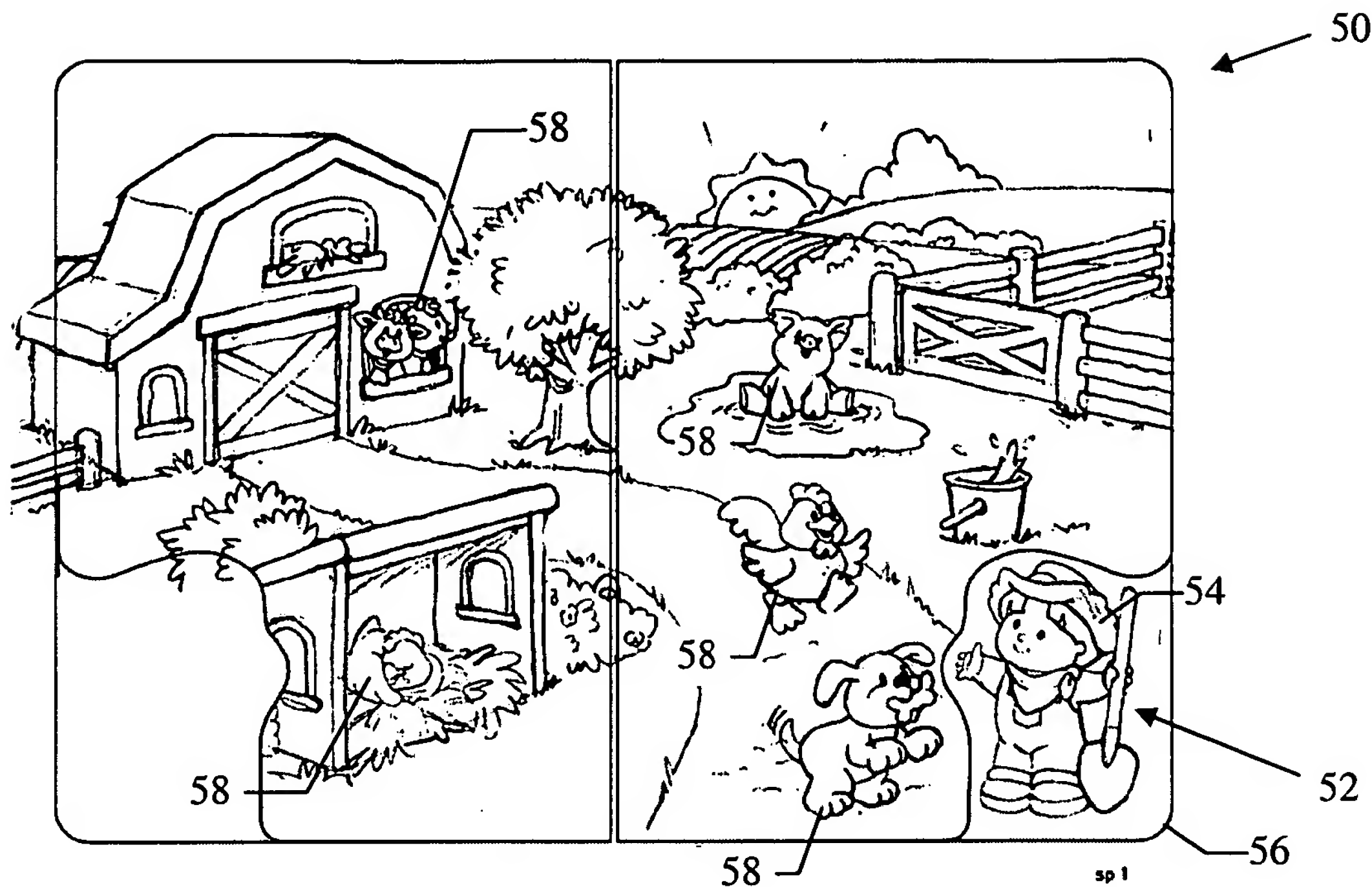


Fig. 5

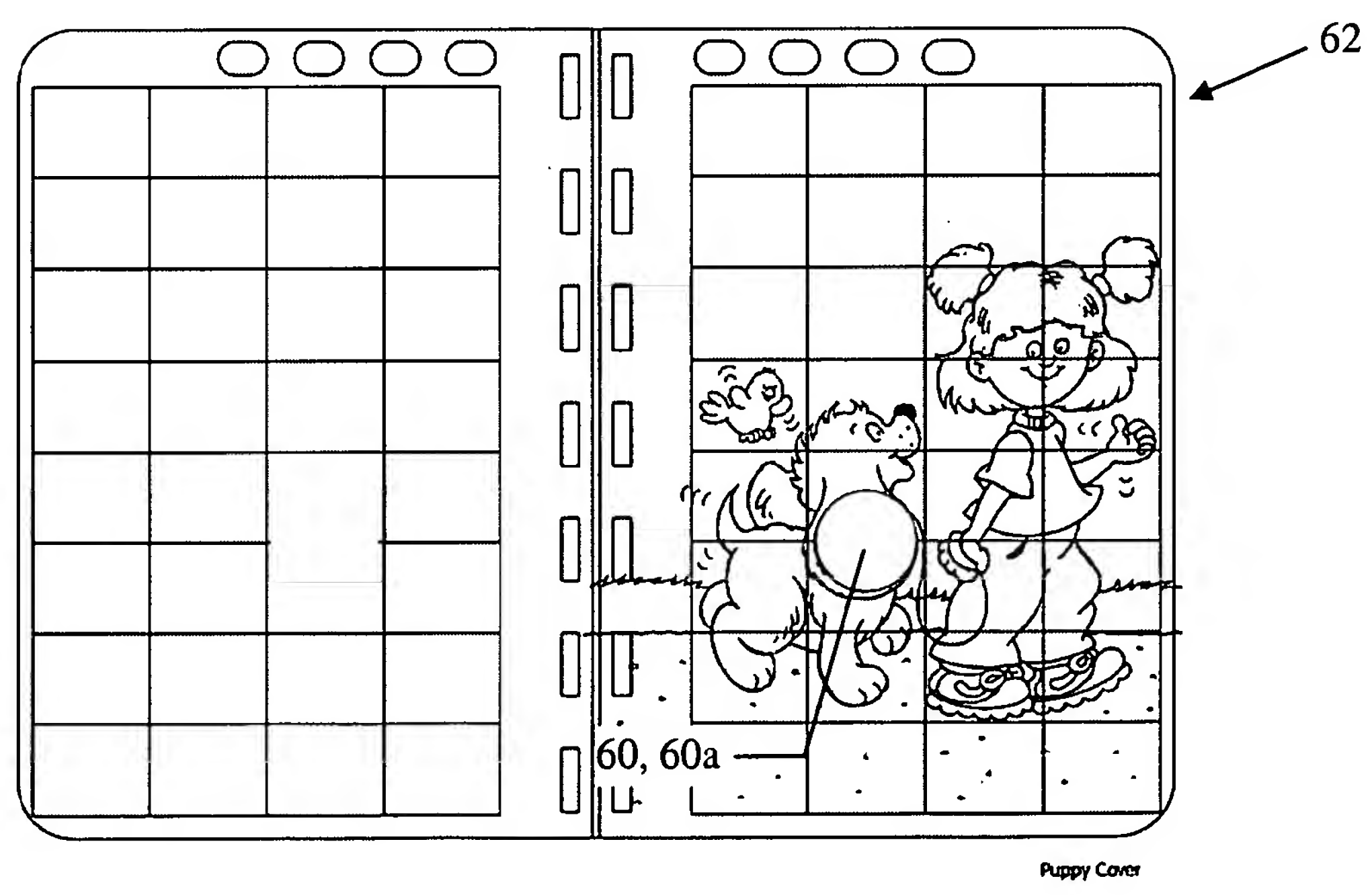


Fig. 6

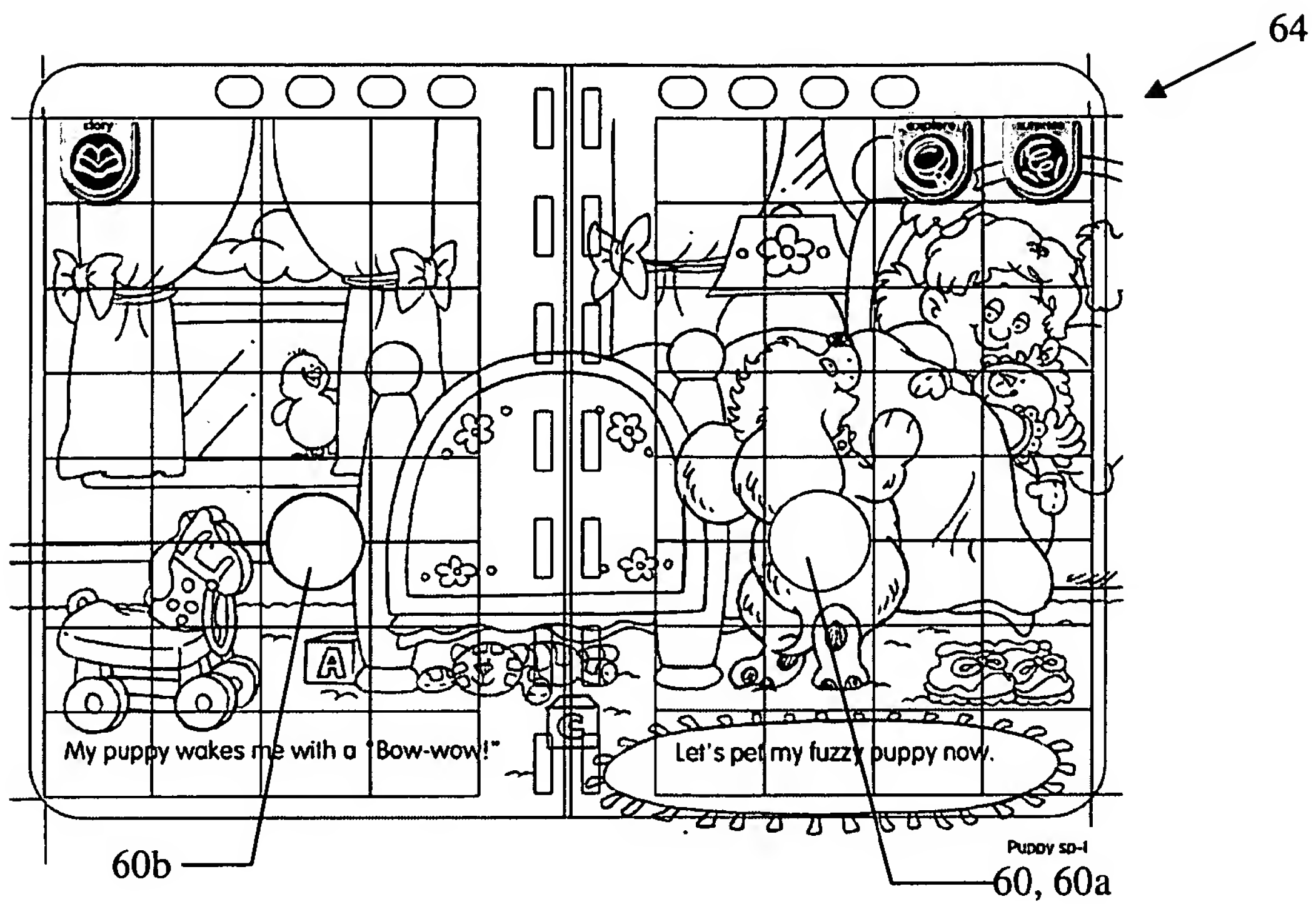


Fig. 7

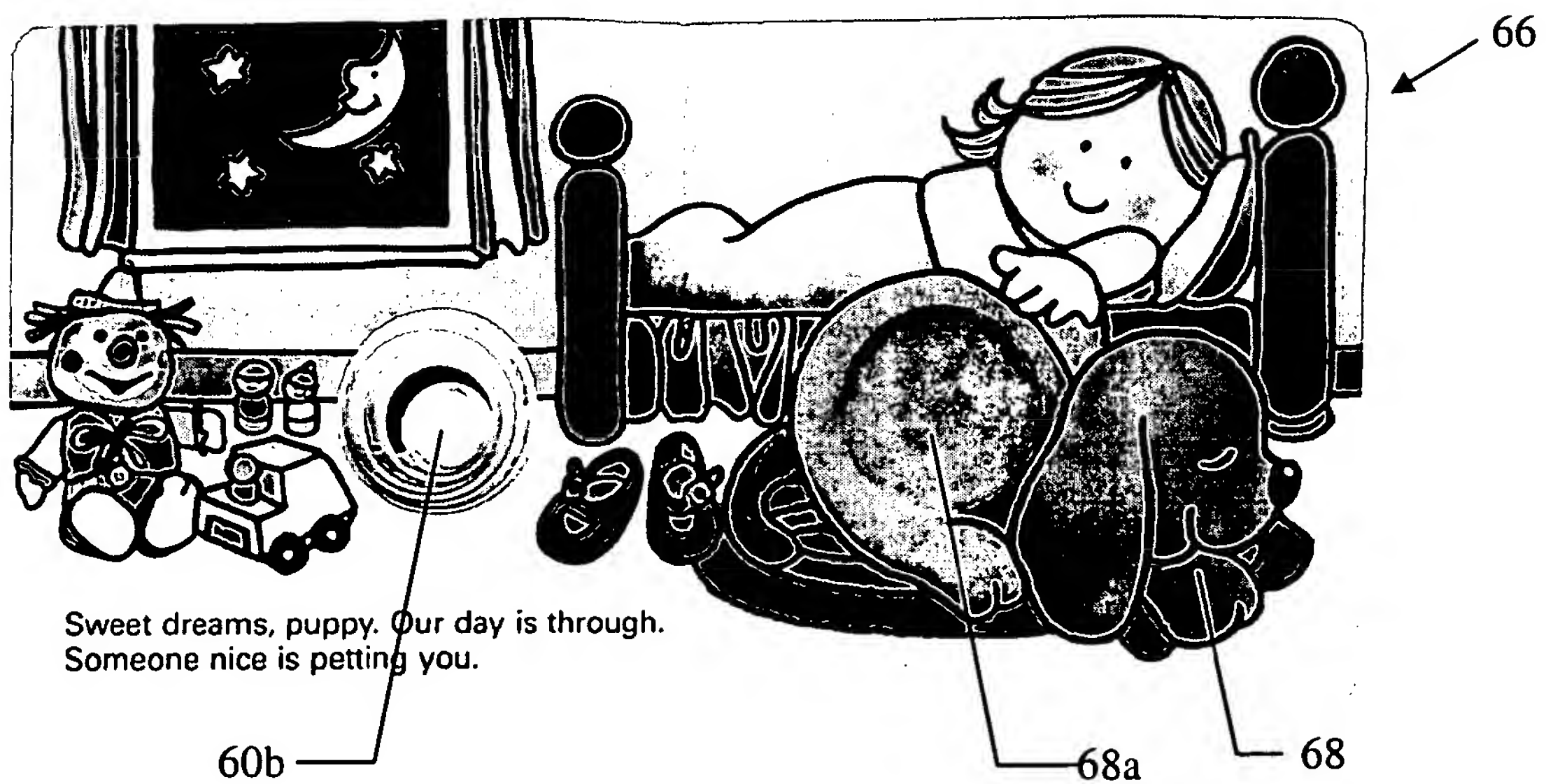


Fig. 8

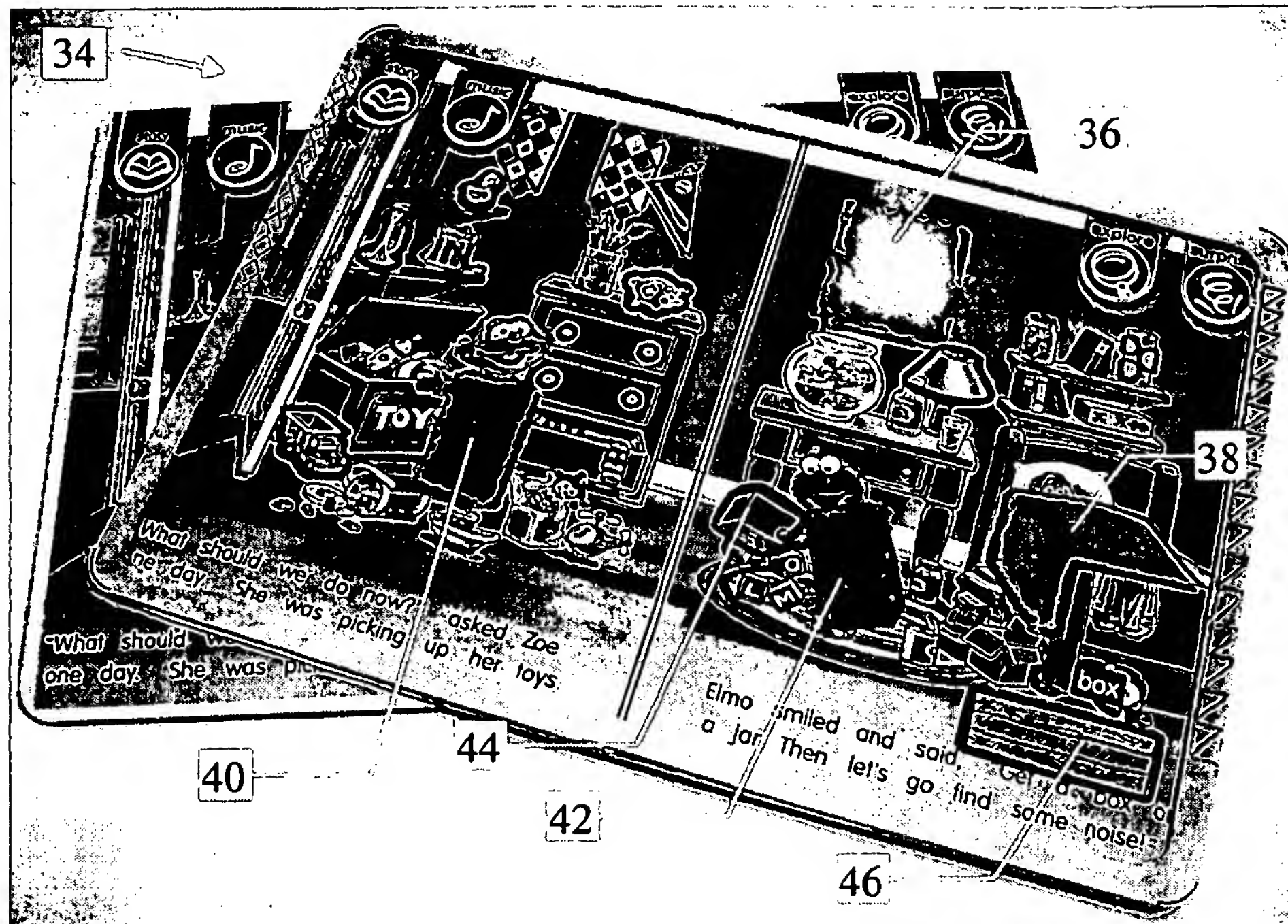


Fig. 9

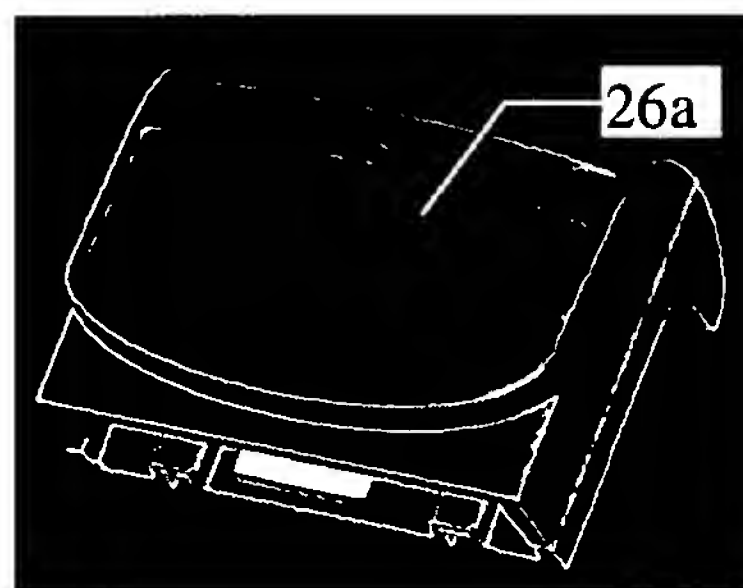


Fig. 10

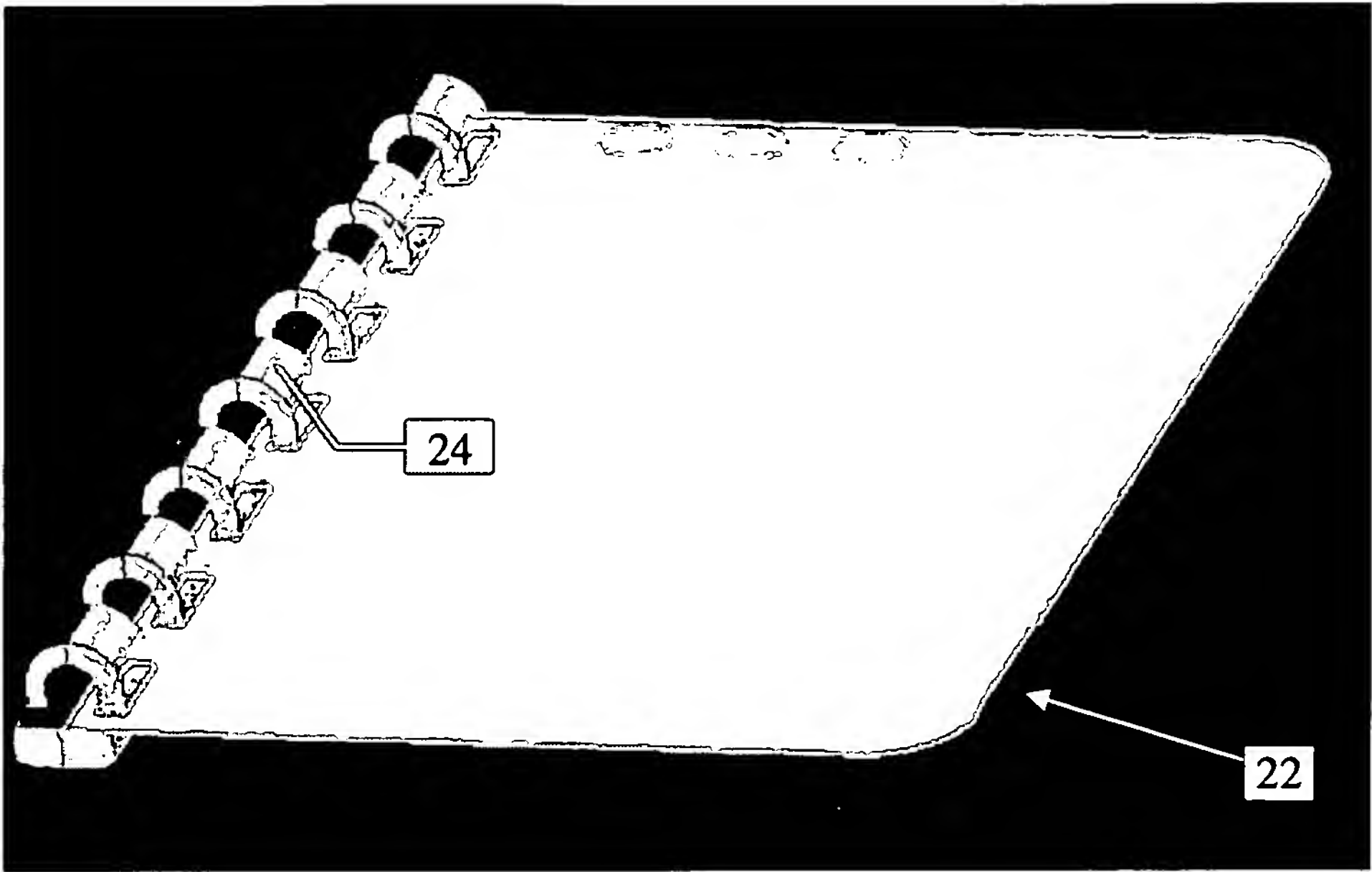


Fig. 11

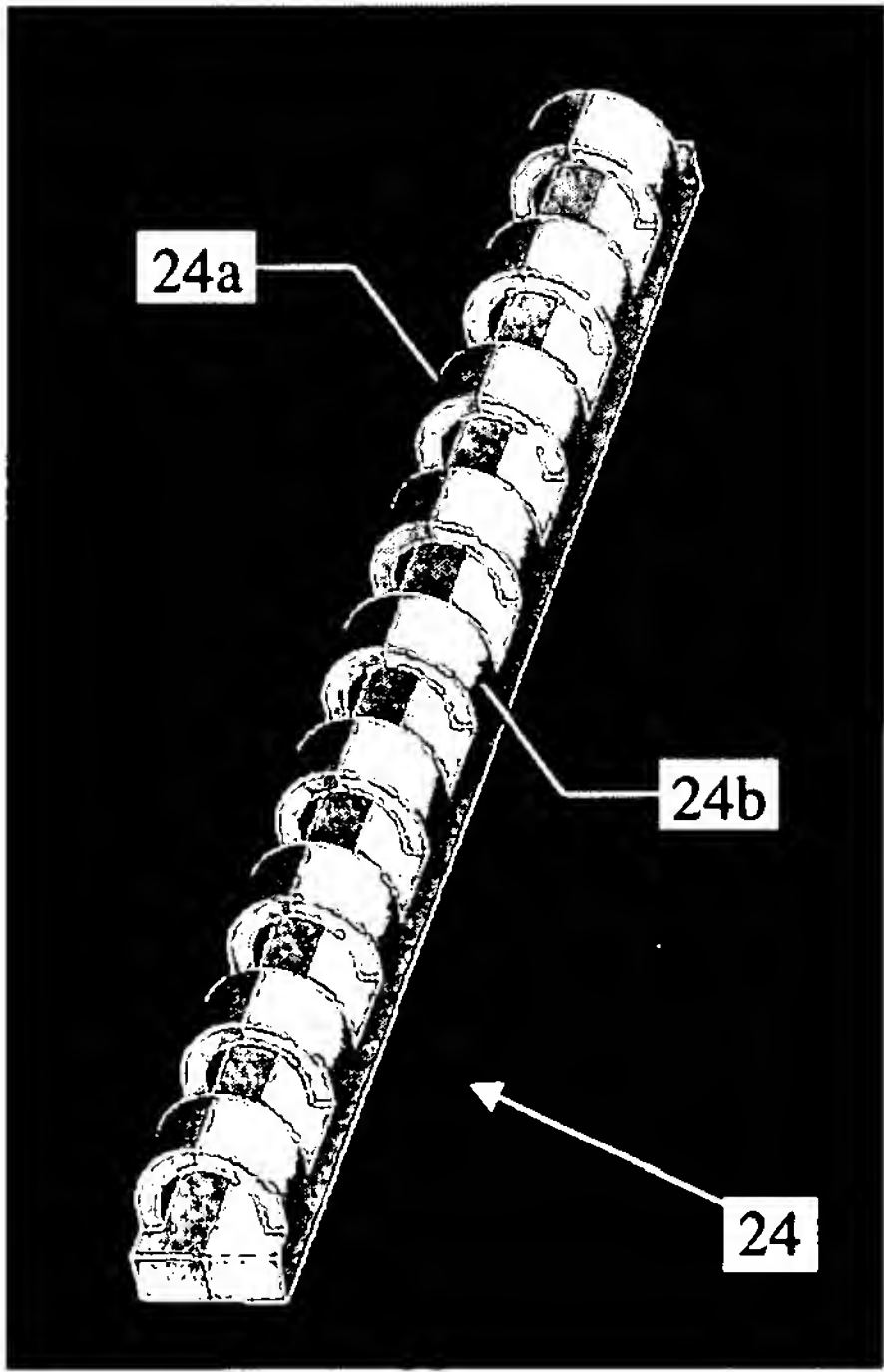


Fig. 12

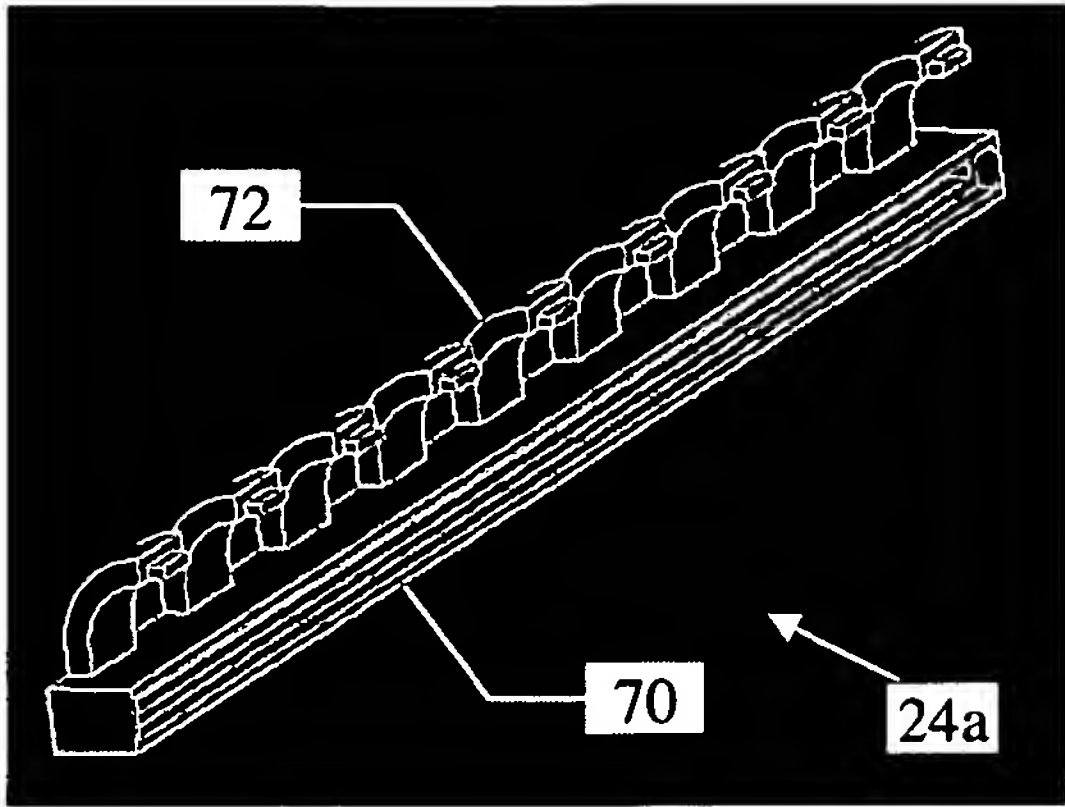


Fig. 13

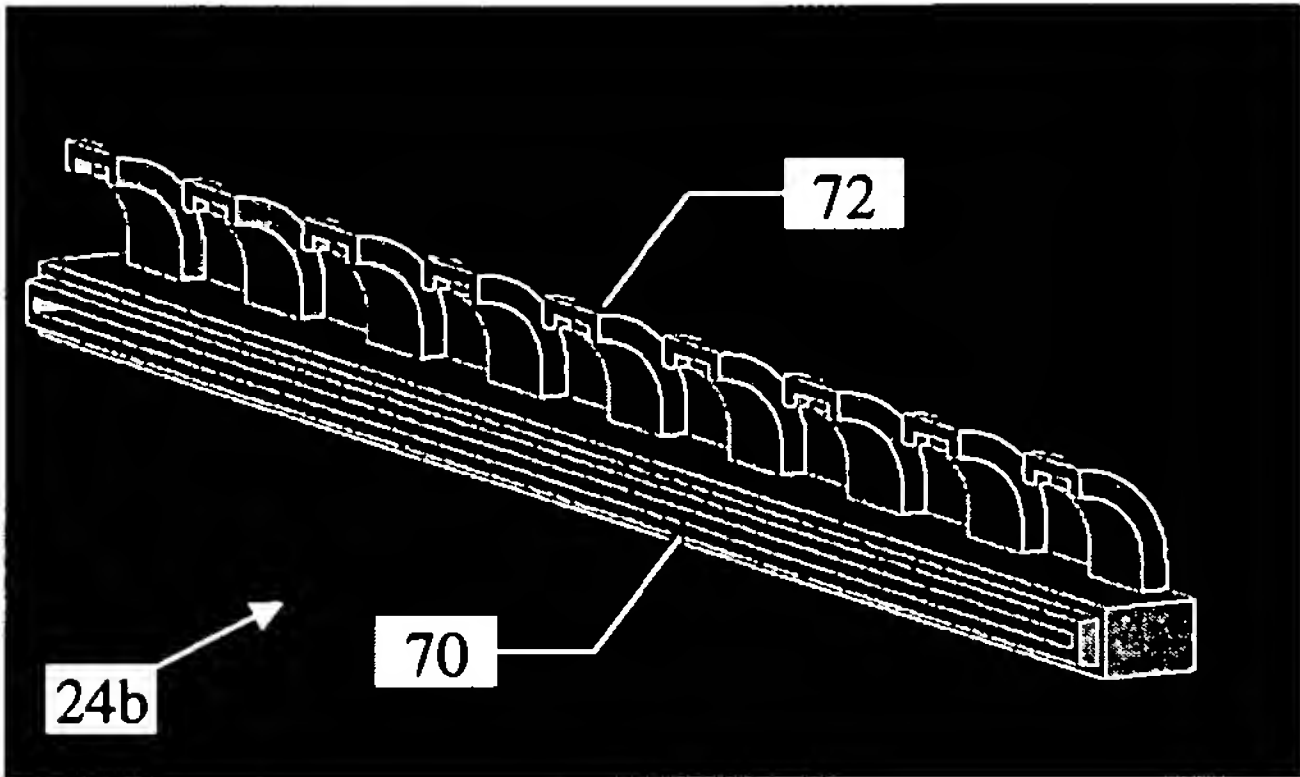


Fig. 14

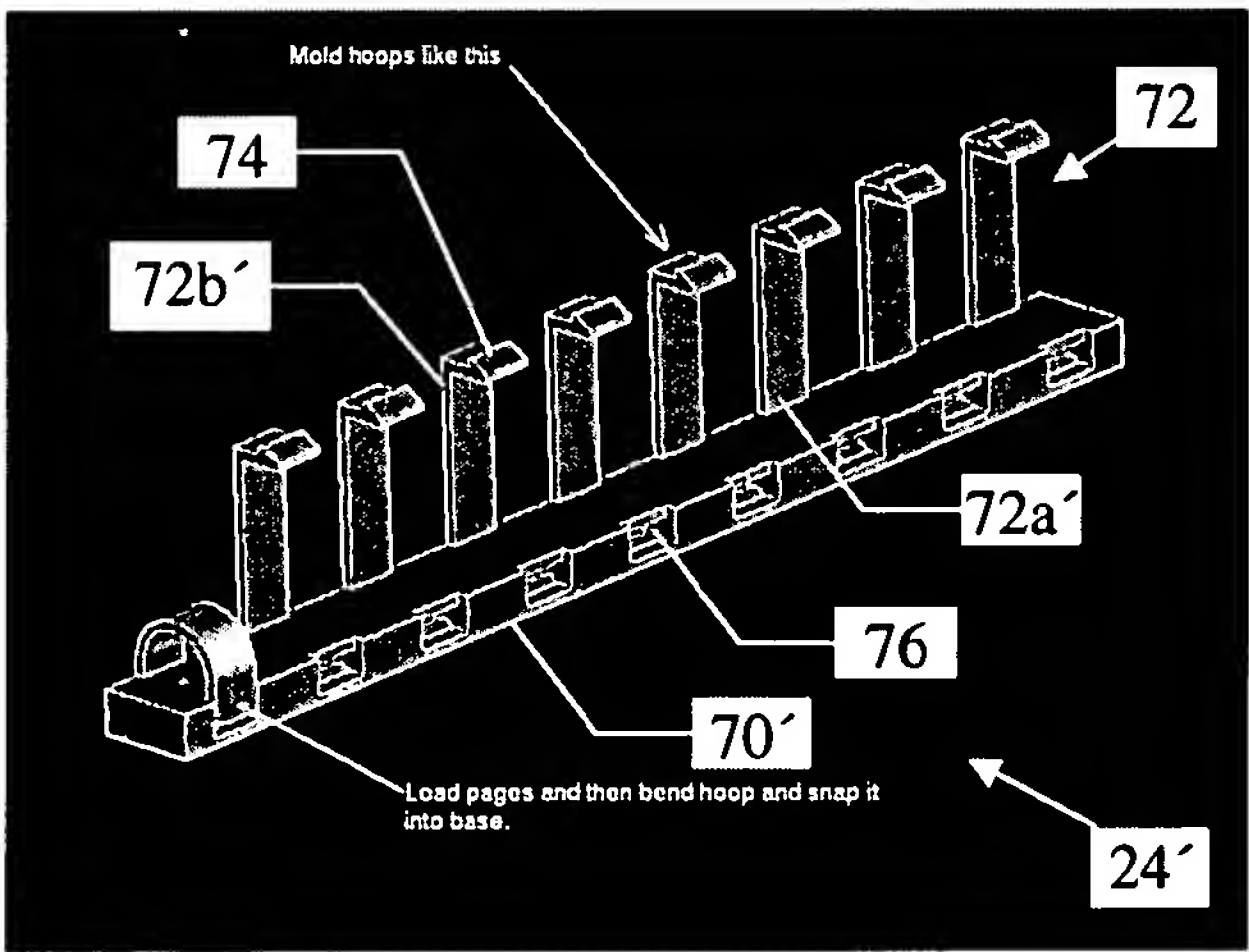


Fig. 15

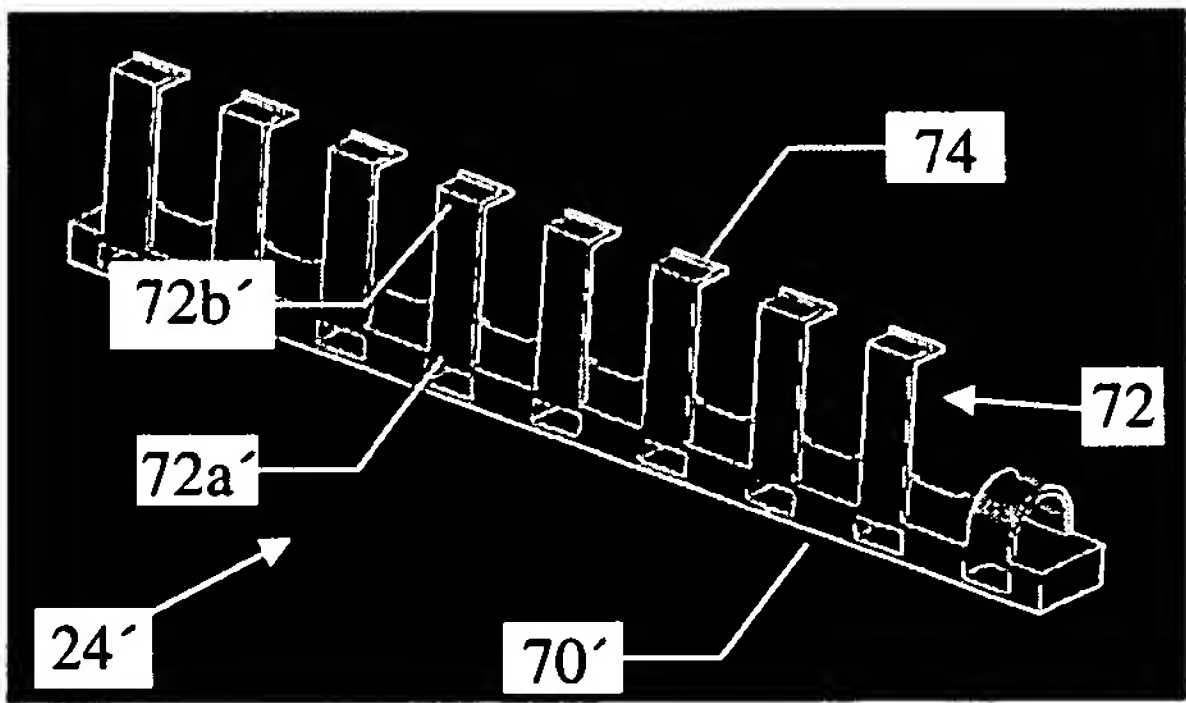


Fig. 16

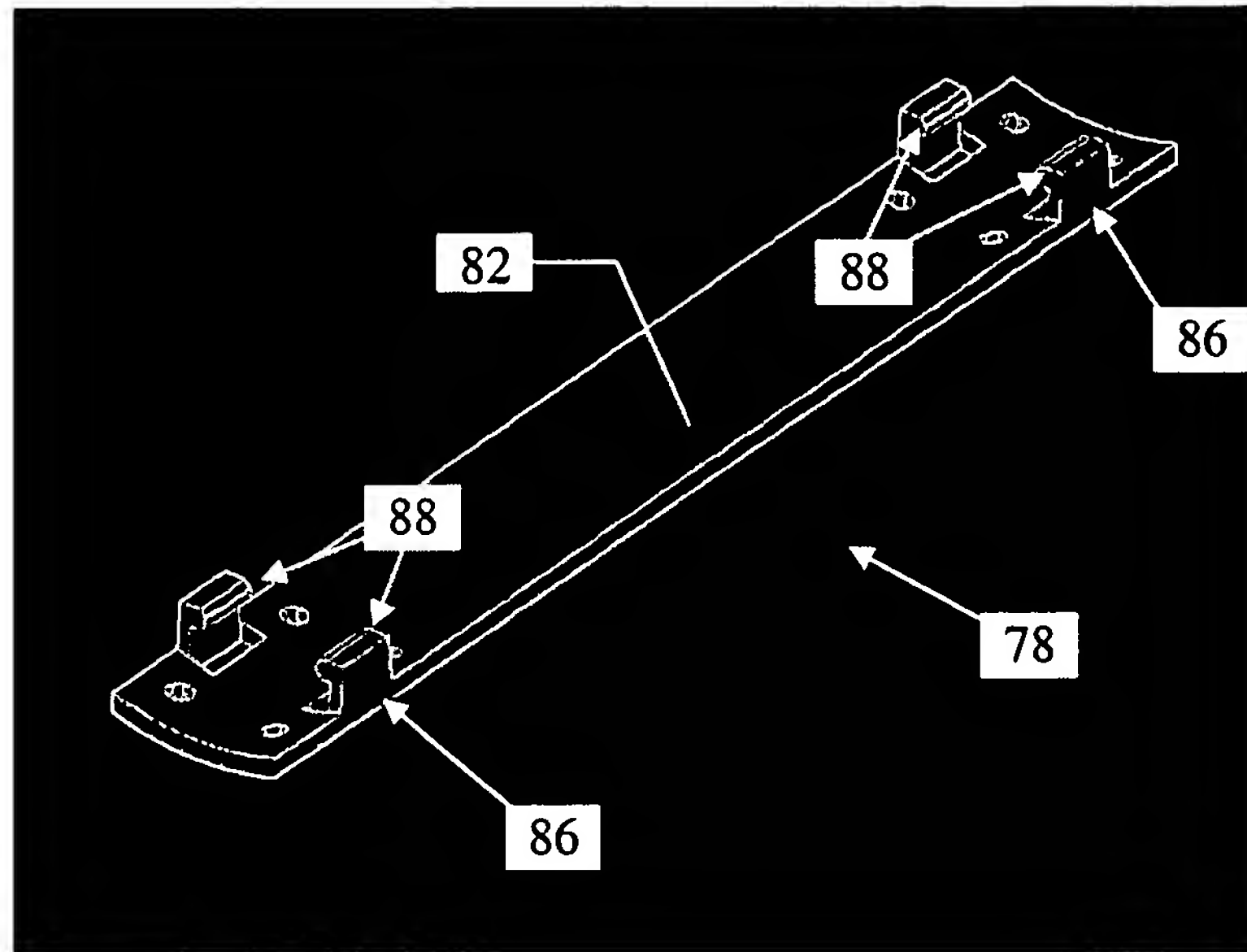


Fig. 17

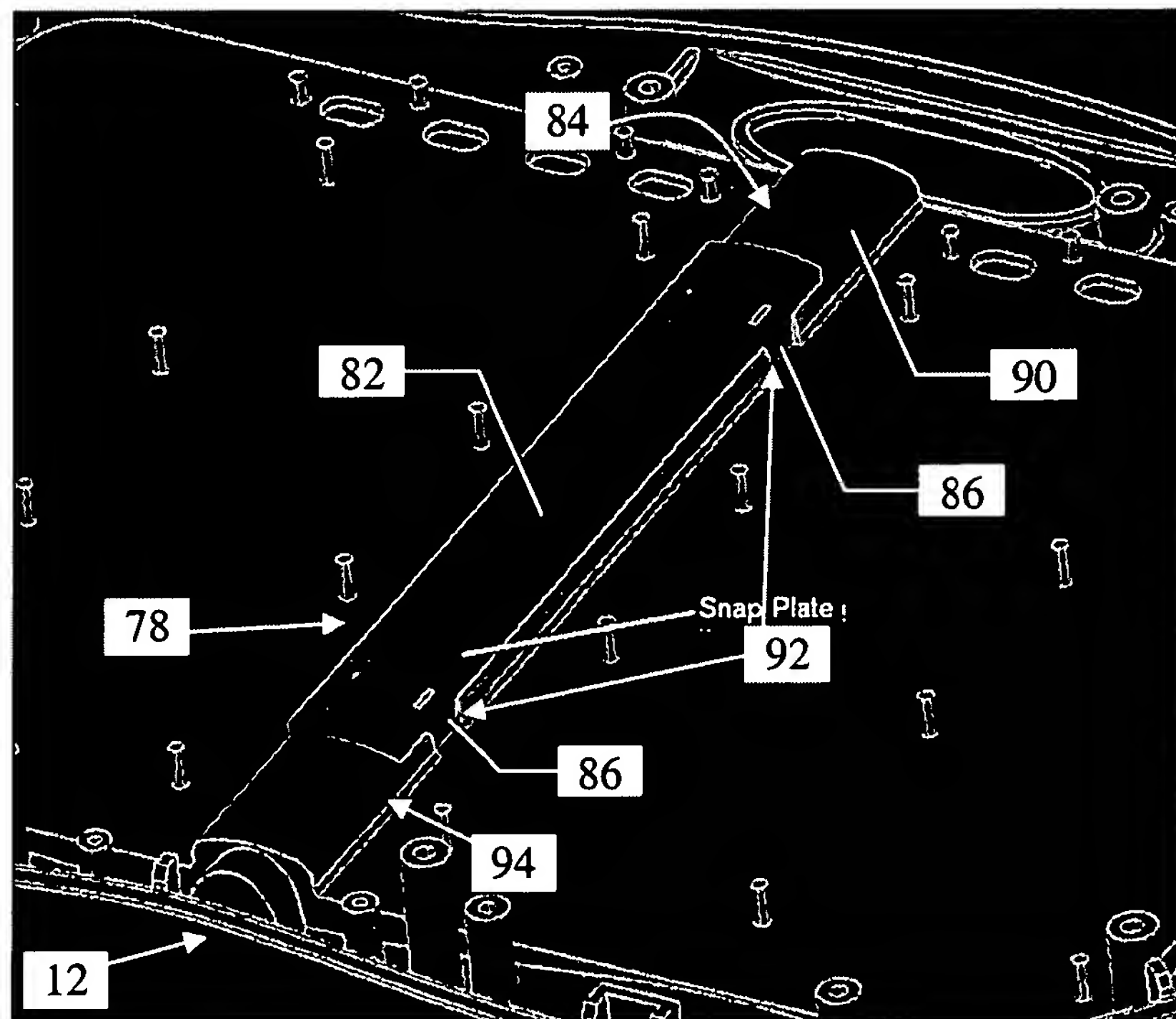


Fig. 18

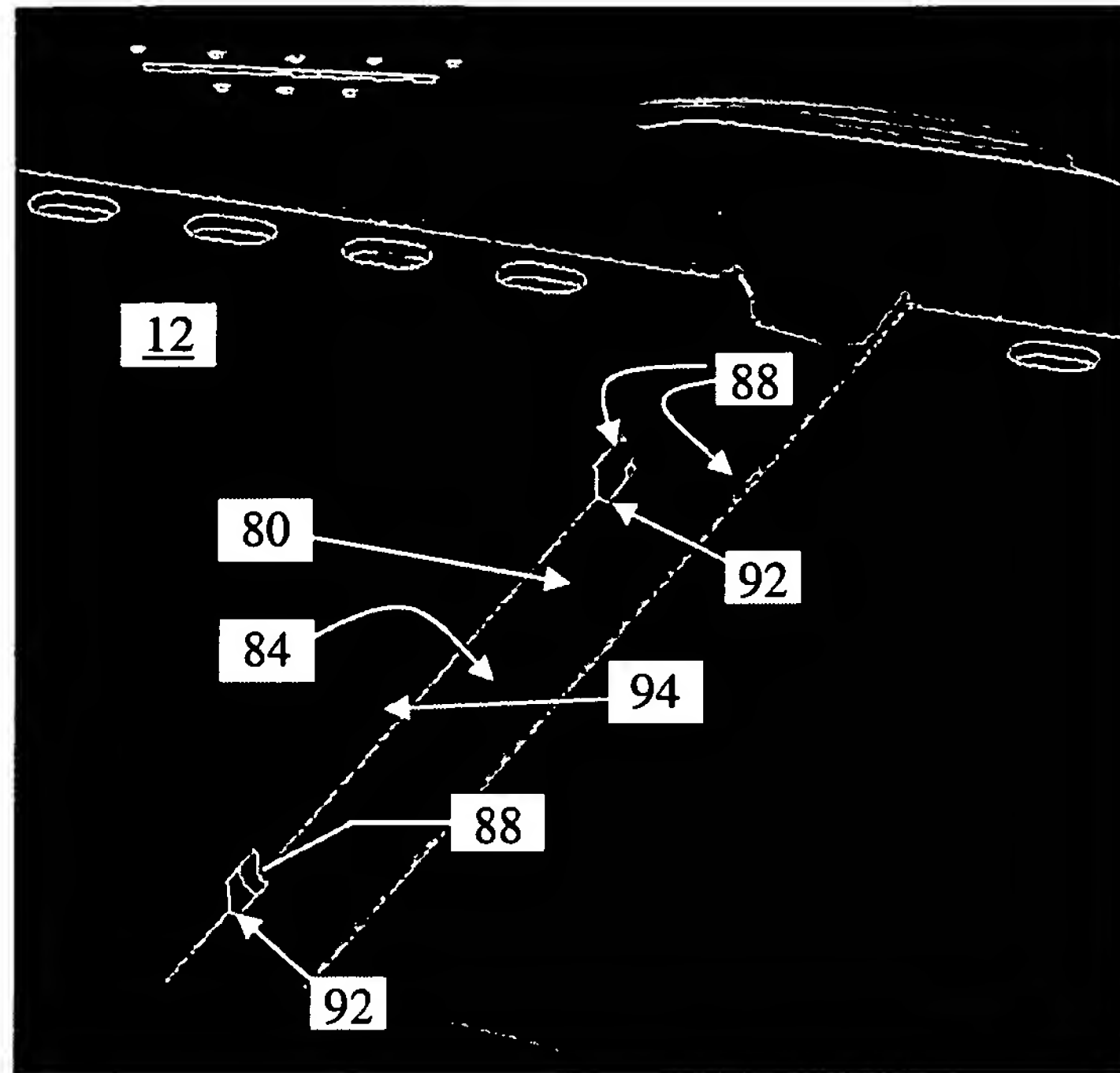


Fig. 19